

Remarks/Arguments

Claims 1-12, 16-21, 23-35, 39-44 and 46 remain pending in the present application. Claims 13-15, 22, 36-38 and 45 have been canceled to expedite prosecution, and claim 24 has been amended to correct a typographical error noted therein. No claims have been added. Applicant believes claims 1-12, 16-21, 23-35, 39-44 and 46 patentably distinguish over the cited art and are allowable in their present form, and respectfully requests reconsideration of the rejection in view of the above amendments and the following comments.

I. 35 U.S.C. § 103, Obviousness

The Examiner has rejected claims 1-46 under 35 U.S.C. § 103(a) as being unpatentable over Glass et al. (U.S. Patent No. 6,253,204 B1) in view of Steele et al. (U.S. Patent Application Publication No. 2003/0191737 A1). This rejection is respectfully traversed.

In rejecting the claims, the Examiner states:

Glass et al discloses a method in a data processing system for pruning search engine indices, comprising:

- "Receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords" See Fig. 2-3, col. 5, lines 35-40, col. 8, lines 61-65.

In particular,

- **Client browser:** Glass teaches an old server-client system (see Fig. 2, col. 4, lines 23-37). A user requests a document such as "document 1" from the Web. The user must use a browser to retrieve document from the WWW. The browser is inherent in Glass reference. Even if the browser is not inherent, the Examiner provides an evident that it is well known in the art, the user must use a browser to view document from the Web (see Steel et al, Fig. 8, paragraph 0125). In the interest of prosecution, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use a browser as taught by Steel into the invention of Glass because the teaching would provide good presentation or viewing a document using a browser.
- **Keywords:** The request that contains "document 1" is inputted to the browser. Therefore, "document 1" corresponds to a keyword. After that "document 2" is also another keyword, when the user

tries to retrieve it. The user is notified if the file is not found, and the browser automatically generates a message to send to the server (fig. 3, step 340). It is well known in the art that the query contains search terms where the search term is equivalent to the keywords. An evident is submitted by Steel et al (See Fig. 15A, paragraph 0151, of Steel).

Search Engine: Glass also teaches that a spider can be utilized (see the abstract, col. 7, lines 59-col. 8, lines 2). A spider can be located in the server (col. 8, lines 55-65). By definition of Microsoft Computer dictionary, Fifth Edition, the term "spider" is an automated program that searches the Internet for documents and indexes their addresses and content related information in a database and also called search engine or crawler. Therefore, this spider is considered equivalent with the "search engine" in the instant application. Since it is a program, the spider can be located in the server side of the system or client side or in the middle such as central system to search for information in the network. Therefore, as discussed above, the user send a message to the server and the spider receives it. A client reports the broken link to the server in which a spider located (as discussed above) (see col. 7, lines 15-16, 57-59).

Glass teaches that the server will modify the broken link in order to restore the link or delete a record after a period of time (see col. 8, lines 43-48).

Glass does not clearly teach that the system will "automatically deleting the Web page from the search engine indices in response to receiving the notification". However, Steel discloses a retrieving information system that allows a user to view a website. Steel discloses a search engine that search the central index (paragraph 0073). In addition, plurality of remote servers also disclose, where each server contains an index (See Fig. 5, of Steel). The Steel system has a capability of deleting the URL in their index if an error occurs in the central server or the sub server (paragraph 0082, 0094, and 0113 of Steel). It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Glass by apply the teaching of Steel for deleting the web page from a search engine index because the combination would keep the record up-to-date, and reduce the time/cost searching for other user in later time.

Office Action dated September 2, 2005, pages 3-5.

Claim 1 of the application is as follows:

1. A method in a data processing system for pruning search engine indices, the method comprising:
receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords; and

automatically deleting the Web page from the search engine indices in response to receiving the notification.

A fundamental notion of patent law is the concept that invention lies in the new combination of old elements. Therefore, a rule that every invention could be rejected as obvious by merely locating each element of the invention in the prior art and combining the references to formulate an obviousness rejection is inconsistent with the very nature of "invention." Consequently, a rule exists that a combination of references made to establish a *prima facie* case of obviousness must be supported by some teaching, suggestion, or incentive contained in the prior art which would have led one of ordinary skill in the art to make the claimed invention.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on the prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The requirements for establishing a *prima facie* case of obviousness in view of a combination of references are set forth in detail in Section 2142 of the MPEP and include the requirements that the Examiner explain in detail why the combination of the teachings is proper, that the Examiner provide a clear and convincing line of reasoning as to why an artisan would have found the claimed invention obvious in light of the teachings of the references, and that the Examiner provide a showing that it is the prior art and not the Applicant's own disclosure that teaches the combination asserted by the Examiner.

Applicant respectfully submits that the Examiner has not established a *prima facie* case of obviousness in rejecting claims of the present application as being obvious over Glass et al. in view of Steele et al., and that the claims are allowable over the references in their present form. In particular, Applicant submits that neither Glass et al. (hereinafter "Glass") nor Steele et al. (hereinafter "Steele") discloses or suggests a method in a data processing system "for pruning search engine indices" as recited in claim 1. Furthermore, Applicant submits that neither Glass nor Steele, considered alone or in combination, discloses or suggests "automatically deleting the Web page from the search engine indices" in response to "receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords" as additionally required by claim 1.

Glass discloses a technique to provide information to a user about the status of information links, such as hypertext links, found in network-based documents. In Glass, a user downloads a document 1 that contains a hypertext link to a document 2. The user then attempts to retrieve document 2, for example, by double clicking on the hypertext link; and an attempt is made to connect with the server where document 2 is located. If document 2 is not available, the link is considered broken. If the link is broken, a mechanism is provided to change the presentation of document 2 on document 1 to indicate that there is a broken link to document 2. The presentation can be changed, for example, by changing the color of the HTML code associated with the information link, by putting an icon before and/or after the information link, or the like (see col. 5, lines 48-57 of Glass).

In rejecting claim 1, the Examiner refers to the teaching in Glass that a spider can be utilized. The Examiner further contends that a spider is equivalent to a search engine and that it can be located in a server; and, therefore, asserts that Glass discloses sending a notification that is received by a search engine (spider) in a server that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords. Applicant respectfully disagrees.

Initially, even if, as asserted by the Examiner, a spider can be construed as being a search engine, Glass discloses in the Abstract only that "A spider can be utilized to periodically check on whether links reported as broken have been restored". Similarly, col. 7, line 59-col. 8, line 6 of Glass reads as follows:

Fig. 14 is a flow chart of an exemplary spider process for periodically testing broken links. The process retrieves a list of broken links from the database (1410), preferably the data base shown in FIGS. 12A and 12B. For each link, the spider attempts a connection (1420). If the connection is not successful (1430-N), the database record is updated with information about the attempted connection (1435) and the next link is selected for processing (1480).

Glass only discloses using a spider to test broken links listed in a database such as shown in FIGS. 12A and 12B which is simply a listing of broken links (see col. 7, lines 13-17 of Glass). Even if a spider can be considered a search engine, Glass nowhere discloses "receiving a notification by a search engine from a client browser that a Web

page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords" as is required by claim 1.

Additionally, and as recognized by the Examiner, Glass also does not disclose "automatically deleting the Web page from the search engine indices in response to receiving the notification" as recited in claim 1. The Examiner indicates, however, that this feature is disclosed by Steele, and refers to paragraphs 0082, 0094 and 0113 of Steele.

Steele discloses a mechanism "to remove references to stale links", and states in paragraphs 0082, 0094 and 0113 referred to by the Examiner:

[0082] As part of the update operation, the SBA 208 may review hypertext links in the pages on the local server 206. The reviewed links are then compared with a link list formed during the previous update operation to determine whether links have been added or subtracted. The SBA 208 includes the list of changed links in the index_delta file transferred to the CI 214. This information may then be used by the CI 214 to remove references to stale links using one or more of a number of methods described more fully hereinbelow.

[0094] The CI maintains in the index database an index for each URL that lists the URLs of pages that include a link to it or reference it. This is a library of URLs that relates each subject URL to other URLs that have a page linking to the subject URL. When index information is reported to the CI indicating that a particular URL has been deleted or moved, the CI may search the URL index to determine which URLs contain links to the deleted URL, and then send notification to the SBA at each of the referring servers. The local SBA may then take some action in response to such notification. For example, the SBA may notify the authors of the referring page, or the website administrator, that the link has been deleted or moved. The SBA may also be programmed to take automatic action. One example of automatic action that the SBA may take in view of a deleted or moved link is to add a warning to the html code of the referring page to indicate that the marked link is no longer valid. Another example is that the SBA may replace the link with a link to the root directory of the site to which the URL had hitherto been referring, if possible. Where the CI is notified that the URL has been moved, rather than deleted, the SBA at the referring site may be configured to update the link to the new URL.

[0113] Upon determining that the target document has been deleted or otherwise removed, the SBA may take one or more of the following actions. First, the SBA may transmit a message to the server administrator, at step 606, notifying the administrator of the change of the target document. The administrator may also be informed as to which source document or documents on the server contain a link

to the target document in question. If authorized or configured to do so, the SBA may automatically amend the source document, for example, by inserting a mark in the source document to indicate that the link is invalid, in step 608. Additionally, the SBA may be authorized or configured to remove the link from the source document, at step 610. Furthermore, the SBA may be authorized or configured to replace the link to the current subject document with a new link to an alternative target document, at step 612.

Steele discloses that when a URL has been deleted or moved, some appropriate action may be taken such as notifying an author or an administrator that a link has been deleted or moved, add a warning to HTML code to indicate that a marked link is no longer valid, or remove or replace a link from a source document or the like. Nowhere does Steele disclose or suggest "automatically deleting the Web page from the search engine indices in response to receiving the notification" as recited in claim 1.

Neither Glass nor Steele teaches or suggests "receiving a notification by a search engine from a client browser that a Web page retrieval error occurred for a Web page or that the Web page no longer contains selected keywords" and "automatically deleting the Web page from the search engine indices in response to receiving the notification", as recited in claim 1, and any combination of Glass and Steele would not achieve the present invention as recited in claim 1.

Furthermore, there is no suggestion in either Glass or Steele to combine the references as proposed by the Examiner. In combining the references, the Examiner states that it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the system of Glass by applying the teaching of Steele for deleting a web page from a search engine index because the combination would keep the record up-to-date, and reduce the time/cost searching for other users at a later time. Applicant submits, however, that neither reference discloses automatically deleting a Web page from search engine indices because a user is not able to access the Web page from a hypertext link in a document, and one of ordinary skill in the art, having both Glass and Steele before him would not consider modifying Glass as proposed by the Examiner.

Thus, in summary, there is no reasonable basis for combining the references as proposed by the Examiner, and, in addition, even if the references were combined as

proposed by the Examiner, the combination would not teach or suggest the present invention. Claim 1, accordingly, is allowable over Glass in view of Steele, and it is respectfully requested that the Examiner so find.

Independent claims 8, 16, 20, 21, 23, 24, 31, 39, 43, 44 and 46 should also be allowable in their present form for similar reasons as discussed above with respect to claim 1.

Claims 2-7, 9-12, 17-19, 25-30, 32-35 and 40-42 depend from and further restrict one of the independent claims, and should also be allowable in their present form, at least by virtue of their dependency. Furthermore, many of these claims recite additional subject matter that is not disclosed or suggested by the cited references. For example, claim 4 requires that a search result include "an indication that the data processing system includes a search engine to cause the client browser to send the notification to the data processing system". Neither Glass nor Steele discloses or suggests this feature, and claim 4, as well as corresponding claims 10 and 27, should be allowable in their own right as well as by virtue of their dependency.

Claim 11 depends from claim 8 and additionally recites "receiving a second type of notification from a client browser that at least one selected search term is absent from the Web page" and "automatically deleting an entry associated with the Web page from the Web page database in response to receiving the second type of notification". Neither Glass nor Steele discloses deleting an entry associated with a Web page from a Web page database in response to receiving a second type of notification from a client browser that at least one search term is absent from the Web page. Claim 11, accordingly, as well as corresponding claims 26 and 34, should also be allowable in their own right as well as by virtue of their dependency.

Therefore, the rejection of claims 1-46 under 35 U.S.C. § 103(a) has been overcome.

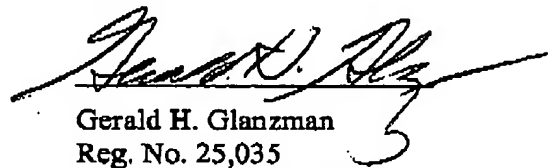
II. Conclusion

For all the above reasons, it is respectfully urged that the subject application is patentable over Glass in view of Steele and is now in condition for allowance. It is, accordingly, respectfully requested that the Examiner so find and issue a Notice of Allowance in due course.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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